



Pin assignment for the boards in the peripheral crate

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- Zpack125 on schematics is AMP part number 100145-1 (female 25 rows by 5 pins).
- Zpack55 on schematics is AMP part number 100161-1 (female 11 rows by 5 pins).
- The guiding pins will be implemented on the backplane-strengthening bars. The corresponding guiding modules are shown on the mechanical drawings (AMP partnumber 223957-1). These modules are used also for keying the boards.
- All signal names match those in Jonathan's document (EMU Peripheral Crate Specification, version 3.2).
- All bussed signals must NOT be terminated on boards, the tracks from the connector to GTLP transceivers should be done as short as possible.
- All 40 MHz point-to-point signals must be terminated on receiving boards: 100 OHM to 1.5 V for GTLP, 100 OHM between the complementary signals for LVDS (clock), as close to the receiver as possible.
- All 80 MHz signals must be terminated on receiving boards: 50 OHM to 1.5 V for GTLP, as close to the receiver as possible.
- 1.5 V power from the backplane is provided for GTLP termination. The board designer should provide bypassing for it. MPC is powered from two regulators, so there are two 1.5V inputs. The load must be distributed so that each of the regulators provides exactly one half of the total power necessary to terminate all GTLP signals.
- TMB RPC feed-thru connector (X18) pin assignment is not defined, all pins are left unconnected on the backplane.
- Mechanical drawings for connector placement are available here:

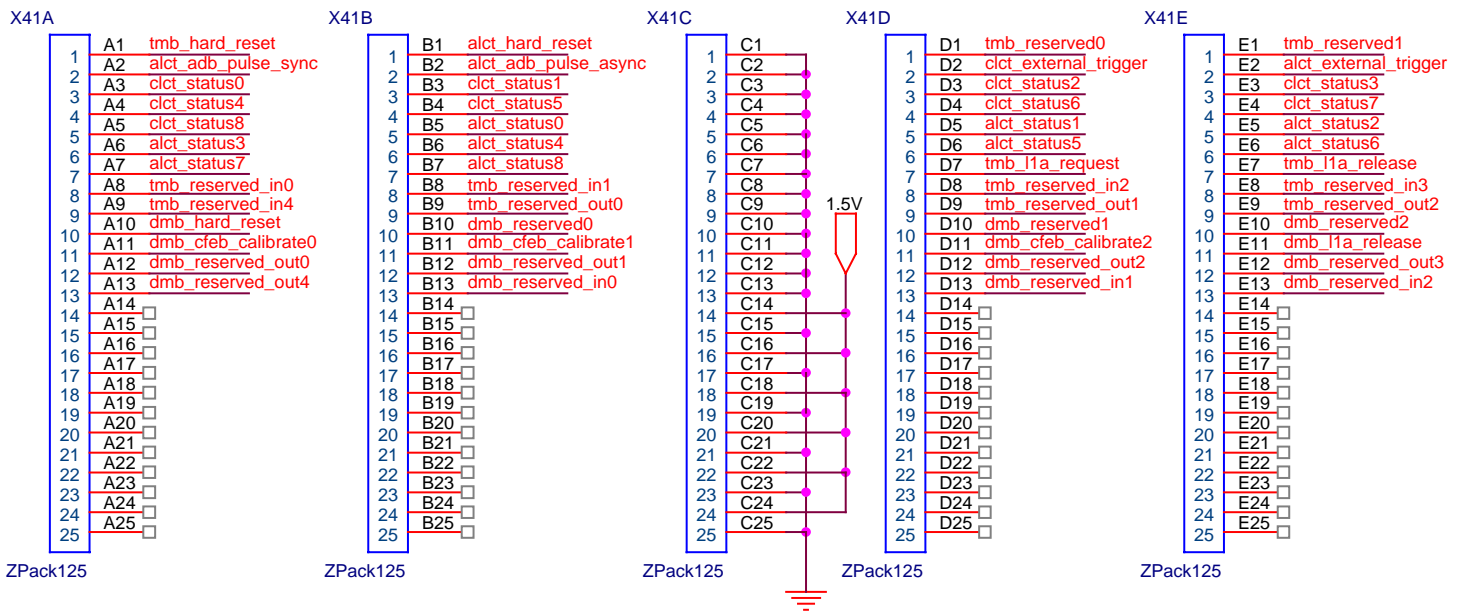
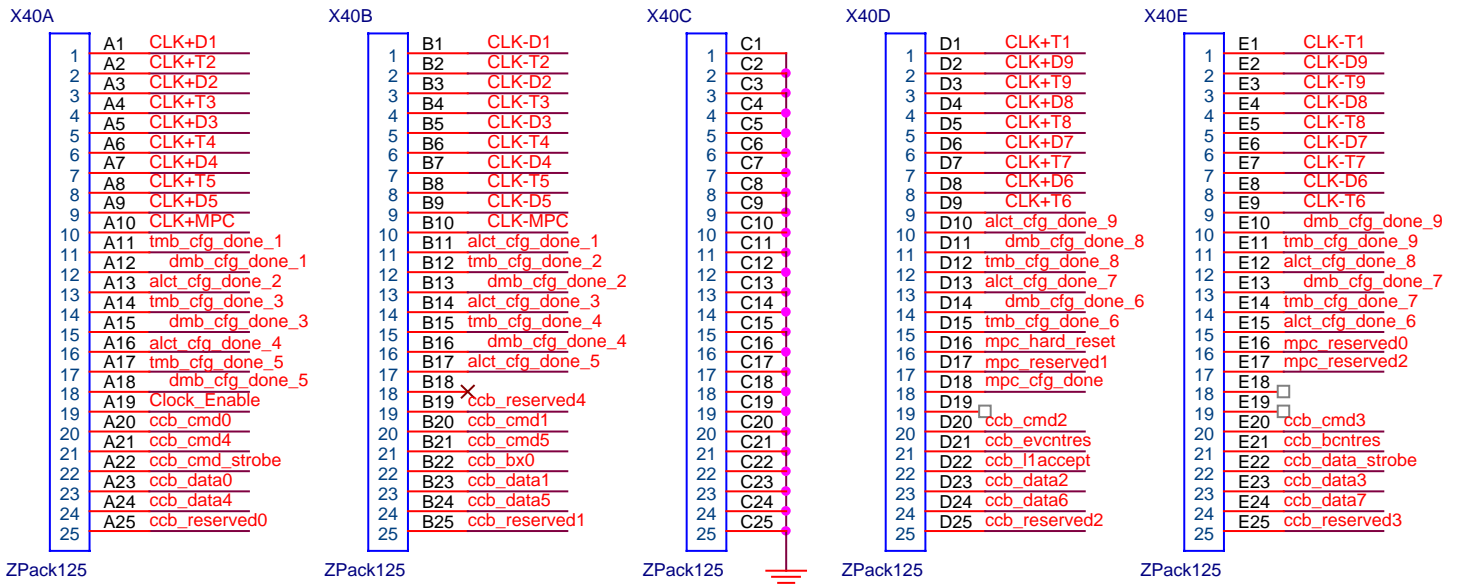
<http://www.phys.ufl.edu/~madorsky/backplane/ccb.dxf>

<http://www.phys.ufl.edu/~madorsky/backplane/dmb.dxf>

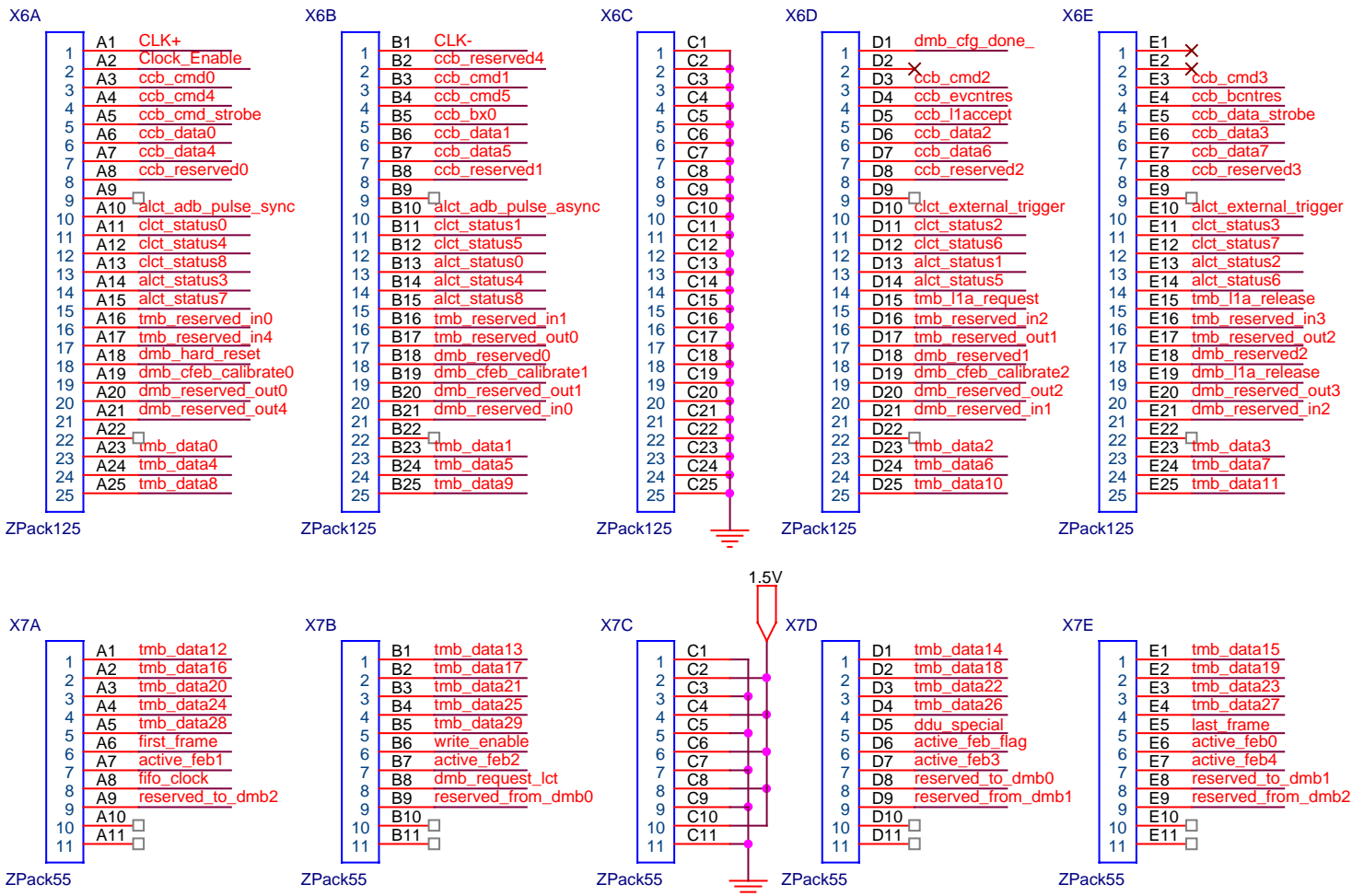
<http://www.phys.ufl.edu/~madorsky/backplane/mpc.dxf>

<http://www.phys.ufl.edu/~madorsky/backplane/tmb.dxf>

Download these files to your local disk and then open by the application supporting DXF – OrCAD (use VisualCAD tool), AutoCAD, Volo View (available for free from <http://www.download.com/>), and by many other applications.



CCB



X36A

Pinout table for X36A (1-25 pins), including signals like CLK+, Clock_Enable, ccb_cmds, lct8_vpf, lct8_quality, lct8_hs, lct8_wg, lct2_vpf, lct2_quality, lct2_hs, lct2_wg.

X37A

Pinout table for X37A (1-11 pins), including signals like lct2_reserved0, lct2_winner, lct6_vpf, lct6_quality, lct6_hs, lct6_wg, lct6_reserved0, lct4_vpf, lct4_quality, lct4_hs, lct4_wg, lct5_vpf, lct5_quality, lct5_hs, lct5_wg, lct5_reserved0, lct3_vpf, lct3_quality, lct3_hs, lct3_wg, lct3_reserved0.

X38A

Pinout table for X38A (1-25 pins), including signals like lct4_vpf, lct4_quality, lct4_hs, lct4_wg, lct5_vpf, lct5_quality, lct5_hs, lct5_wg, lct5_reserved0, lct3_vpf, lct3_quality, lct3_hs, lct3_wg, lct3_reserved0, lct1_vpf, lct1_quality, lct1_hs, lct1_wg, lct1_reserved0, lct9_vpf, lct9_quality, lct9_hs, lct9_wg, lct9_reserved0, lct9_winner.

ZPack125

X36B

Pinout table for X36B (1-25 pins), including signals like CLK-, ccb_reserved4, ccb_cmds, lct8_quality, lct8_hs, lct8_wg, lct2_reserved1, lct2_quality, lct2_hs, lct2_wg.

X37B

Pinout table for X37B (1-11 pins), including signals like lct2_accmu, lct4_winner, lct6_quality, lct6_hs, lct6_wg, lct6_reserved1, lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved1, lct3_quality, lct3_hs, lct3_wg, lct3_reserved1.

X38B

Pinout table for X38B (1-25 pins), including signals like lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved1, lct3_quality, lct3_hs, lct3_wg, lct3_reserved1, lct7_quality, lct7_hs, lct7_wg, lct7_reserved1, lct1_quality, lct1_hs, lct1_wg, lct1_reserved1, lct9_quality, lct9_hs, lct9_wg, lct9_reserved1.

ZPack125

X36C

Pinout table for X36C (1-25 pins), including signals C1-C25.

X37C

Pinout table for X37C (1-11 pins), including signals C1-C11.

X38C

Pinout table for X38C (1-25 pins), including signals C1-C25.

ZPack125

X36D

Pinout table for X36D (1-25 pins), including signals mpc_hard_reset, mpc_reserved, ccb_cmds, ccb_evtctrls, ccb_data, ccb_data7, lct8_quality, lct8_hs, lct8_wg, lct2_quality, lct2_hs, lct2_wg.

X37D

Pinout table for X37D (1-11 pins), including signals lct2_bxn0, lct2_reserved2, lct6_winner, lct6_quality, lct6_hs, lct6_wg, lct6_reserved2, lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved2, lct3_quality, lct3_hs, lct3_wg, lct3_reserved2.

X38D

Pinout table for X38D (1-25 pins), including signals lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved2, lct3_quality, lct3_hs, lct3_wg, lct3_reserved2, lct7_quality, lct7_hs, lct7_wg, lct7_reserved2, lct1_quality, lct1_hs, lct1_wg, lct1_reserved2, lct9_quality, lct9_hs, lct9_wg, lct9_reserved2.

ZPack125

X36E

Pinout table for X36E (1-25 pins), including signals mpc_reserved, ccb_reserved, ccb_data_strobe, ccb_data7, ccb_reserved3, lct8_quality, lct8_hs, lct8_wg, lct2_quality, lct2_hs, lct2_wg.

X37E

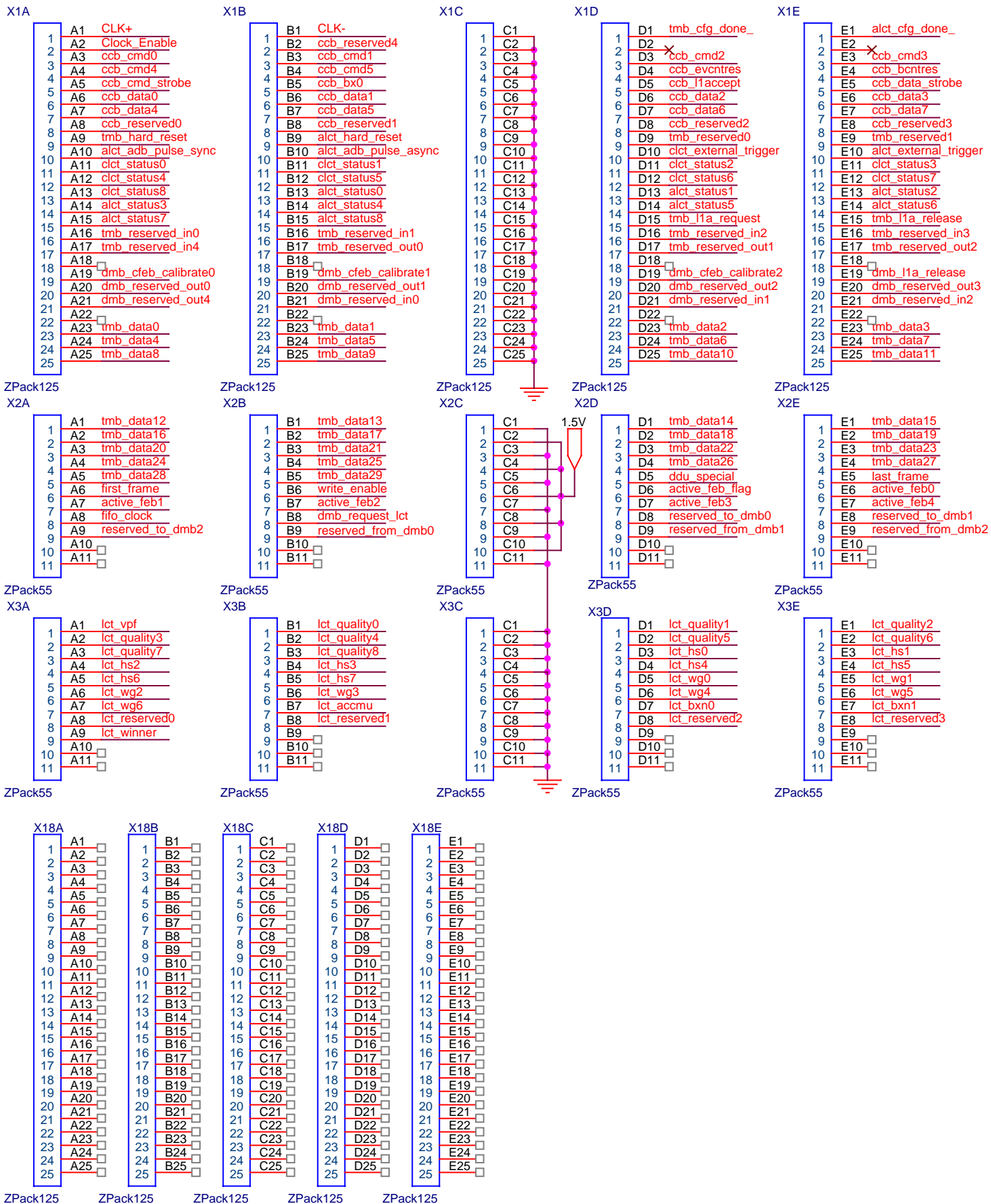
Pinout table for X37E (1-11 pins), including signals lct2_bxn1, lct2_reserved3, lct8_winner, lct6_quality, lct6_hs, lct6_wg, lct6_reserved3, lct4_winner, lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved3, lct3_winner, lct3_quality, lct3_hs, lct3_wg, lct3_reserved3.

X38E

Pinout table for X38E (1-25 pins), including signals lct4_quality, lct4_hs, lct4_wg, lct5_quality, lct5_hs, lct5_wg, lct5_reserved3, lct3_quality, lct3_hs, lct3_wg, lct3_reserved3, lct7_winner, lct7_quality, lct7_hs, lct7_wg, lct7_reserved3, lct1_quality, lct1_hs, lct1_wg, lct1_reserved3, lct9_quality, lct9_hs, lct9_wg, lct9_reserved3.

ZPack125

MPC



Revision history:

- 02/05/01 – Creation
- 02/06/01 – Title changed to reflect better the purpose of this document
- 02/12/01 – Clock_Enable+ renamed to Clock_Enable, Clock_Enable- renamed to ccb_reserved4
- 02/22/01 – Universal Power Modules added to TMB, DMB, CCB. MPC 1.5 V power is split in two halves.
- 02/26/01 – Mechanical drawings links added.
- 03/02/01 – Universal Power Modules excluded, all board's connectors are changed to female type, guiding hardware added. Mechanical drawings updated.